IN THE CLAIMS

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1.   (Currently Amended) For use in a mobile ad hoc network formed by a plurality of mobile ad hoc network (MANET) nodes, a first MANET node capable of routing data packets, said first MANET node comprising:

a radio frequency (RF) transceiver capable of wirelessly communicating with other ones of said plurality of MANET nodes; and

a controller capable of receiving incoming data packets from said RF transceiver and sending outgoing data packets to said RF transceiver, wherein said controller is further capable of implementing a MANET routing protocol at a medium access control (MAC) layer by, at the MAC layer, (i) intercepting receiving a first data packet associated with at least one of[[:]] the incoming data packet and the outgoing data packet, (ii) determining a first medium access control (MAC) MAC layer address associated with said first data packet, and (iii) adding said first MAC layer address to said first data packet.

2.   (Original)   The first MANET node as set forth in Claim 1 wherein said controller determines said first MAC layer address associated with said first data packet by determining a first destination MANET node associated with said first data packet.

3.   (Original)   The first MANET node as set forth in Claim 2 wherein said controller further determines said first MAC layer address associated with said first data packet by determining a first route coupling said first MANET node and said first destination MANET node.

4.   (Original)   The first MANET node as set forth in Claim 3 wherein said controller determines said first route by looking up said first route in a routing table associated with said first MANET node.

5.   (Original)   The first MANET node as set forth in Claim 4 wherein said controller looks up said first route using an IP address associated with said first data packet.

6.   (Original)   The first MANET node as set forth in Claim 3 wherein said controller forwards said first data packet containing said first MAC layer address to said first destination MANET node by transmitting said first data packet to a next sequential MANET node in said first route.

7.   (Original)   The first MANET node as set forth in Claim 6 wherein said first MAC layer address is associated with said next sequential MANET node in said first route.

8.   (Original)   The first MANET node as set forth in Claim 6 wherein said controller is further capable of receiving a second data packet from a medium access control (MAC) layer associated with said first MANET node and determining if said second data packet contains a MAC layer address associated with said first MANET node.

9.   (Original)   The first MANET node as set forth in Claim 8 wherein said controller, in response to a determination that said second data packet does contain a MAC layer address associated with said first MANET node, routes said second data packet to a second destination MANET node.

10.   (Original)   The first MANET node as set forth in Claim 9 wherein said controller, in response to a determination that said second data packet does not contain a MAC layer address associated with said first MANET node, stores Internet protocol (IP) information associated with said second data packet in a routing table associated with said first MANET node.

11.   (Currently Amended) For use in a mobile ad hoc network formed by a plurality of mobile ad hoc network (MANET) nodes, a method of routing data packets in a first MANET node comprising the steps of:

at a medium access control (MAC) layer, intercepting receiving a first data packet associated with at least one of[[:]] an incoming data packet and an outgoing data packet;

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at the MAC layer, determining a first ~~medium access control (MAC)~~ MAC layer address

associated with the first data packet; and

at the MAC layer, adding the first MAC layer address to the first data packet.

12. (Original) The method as set forth in Claim 11 wherein the step of determining

the first MAC layer address associated with the first data packet comprises the sub-step of

determining a first destination MANET node associated with the first data packet.

13. (Original) The method as set forth in Claim 12 wherein the step of determining

the first MAC layer address associated with the first data packet further comprises the sub-step of

determining a first route coupling the first MANET node and the first destination MANET node.

14. (Original) The method as set forth in Claim 13 wherein the sub-step of

determining the first route comprises the sub-step of looking up the first route in a routing table

associated with the first MANET node.

15. (Original) The method as set forth in Claim 14 wherein the sub-step of looking

up the first route uses an IP address associated with the first data packet.

16. (Original) The method as set forth in Claim 13 further comprising the step of

forwarding the first data packet containing the first MAC layer address to the first destination

MANET node by transmitting the first data packet to a next sequential MANET node in the first route.

17. (Original) The method as set forth in Claim 16 wherein the first MAC layer address is associated with the next sequential MANET node in the first route.

18. (Original) The method as set forth in Claim 16 further comprising the steps of receiving a second data packet from a medium access control (MAC) layer associated with the first MANET node and determining if the second data packet contains a MAC layer address associated with the first MANET node.

19. (Original) The method as set forth in Claim 18 further comprising the step, in response to a determination that the second data packet does contain a MAC layer address associated with the first MANET node, of routing the second data packet to a second destination MANET node.

20. (Original) The method as set forth in Claim 19 further comprising the step of, in response to a determination that the second data packet does not contain a MAC layer address associated with the first MANET node, of storing Internet protocol (IP) information associated with the second data packet in a routing table associated with the first MANET node.